Amendments to the Claims

1　Claim 1 (currently amended): A method of monitoring network performance where performance

2　requirements are already established in order to generate anticipatory alerts, comprising:

3　　　monitoring, by a computer, a performance-defining metric on a recurring basis to obtain

4　samples of the metric;

5　　　determining a trend in actual service based on the obtained samples of the metric using

6　linear regression, further comprising:

7　　　　analyzing a set of samples obtained over a predetermined sampling interval to

8　determine whether the analyzed set satisfies predetermined reliability criteria, the predetermined

9　reliability criteria requiring a predetermined, minimum number of samples in the set; and

10　　　　if the analyzed set of samples satisfies the predetermined reliability criteria, then

11　using the set of samples in the linear regression, further comprising:

12　　　　　determining a standard deviation and a mean of the ones of the obtained

13　sets of samples,

14　　　　　determining a ratio of the standard deviation and the mean of the ones of

15　the obtained sets of samples, [[and]]

16　　　　　generating a prediction, using the ones of the obtained sets of samples in

17　which the ratio of the standard deviation and the mean does not exceed a predefined threshold, of

18　a time at which the metric will cross a defined threshold if the current trend continues; and

19　　　　　generating an anticipatory alert if the time at which the metric will cross the

20　defined threshold is less than a predetermined time from a current time at which the prediction is

21　made; and

1   canceling a previously generated alert if a subsequently-generated mathematical

2   representation of the current trend predicts that the time when the network performance metric

3   will exceed the defined threshold is not within a predetermined time window measured from a

4   current time at which the subsequent prediction is made.

Claims 2 - 6 (canceled)

1   Claim 7 (previously presented): A method for use in a system for providing an anticipatory alert

2   wherein at least one network performance metric is required to comply with a defined threshold,

3   comprising:

4   monitoring, by a computer, a provided service to obtain, on a recurring basis, sets of

5   samples representing actual network performance;

6   using only the obtained sets of samples containing at least a predetermined minimum

7   number of samples in a linear regression analysis to generate a mathematical representation of a

8   current trend in the network performance, further comprising:

9   calculating predefined statistical parameters of each obtained set of samples,

10   wherein the calculated predefined statistical parameters comprise a standard deviation and mean

11   of the set of samples,

12   determining whether the calculated predefined statistical parameters meet a

13   predefined threshold requirement, and

14   using, in the linear regression analysis, only the obtained sets of samples for which

15   the calculated predefined statistical parameters are determined to meet the predefined threshold

16 requirement;

17 using the mathematical representation, predicting a time when the network performance

18 metric will exceed the defined threshold if the current trend continues;

19 generating the anticipatory alert if the predicted time is within a fixed time window

20 measured from a current time at which the prediction is made; and

21 canceling a previously generated alert if a subsequently-generated mathematical

22 representation of the current trend predicts that the time when the network performance metric

23 will exceed the defined threshold is not within the fixed time window measured from a current

24 time at which the subsequent prediction is made.

Claims 8 - 10 (canceled)

1 Claim 11 (previously presented): The method as set forth in claim 7, wherein:

2 the predefined threshold requirement requires that the standard deviation be no greater

3 than a predetermined percentage of the mean.

1 Claim 12 (currently amended): A system for providing an anticipatory alert indicating a predicted

2 violation of a predetermined network performance requirement, the system comprising:

3 a memory;

4 a performance monitor which obtains sets of samples of a predefined service metric on a

5 recurring basis;

6 a sample processor which receives the obtained sets of samples and generates a

7   mathematical representation of a current trend in service metric values using ones of the obtained

8   sets of samples that contain at least a predetermined, minimum number of samples, wherein the

9   mathematical representation comprises a linear regression performed using the ones of the

10   obtained sets of samples and the sample processor further comprises:

11   statistical logic for determining a standard deviation and a mean of the ones of the

12   obtained sets of samples,

13   arithmetic logic for determining a ratio of the standard deviation and the mean of

14   the ones of the obtained sets of samples, and

15   prediction logic for generating a prediction, using the ones of the obtained sets of

16   samples in which the ratio of the standard deviation and the mean does not exceed a predefined

17   threshold, of a time at which the service metric will cross a defined threshold if the current trend

18   continues; [[and]]

19   an alert generator for generating the anticipatory alert if the time at which the service

20   metric will cross the defined threshold is less than a predetermined time from a current time at

21   which the prediction is made; and

22   a canceler for canceling a previously generated alert if a subsequently-generated

23   mathematical representation of the current trend predicts that the time when the service metric

24   will cross the defined threshold is not within the predetermined time measured from a current time

25   at which the subsequent prediction is made.

Claims 13 - 18 (canceled)

1   Claim 19 (currently amended): An article of manufacture comprising a non-transitory computer

2   useable storage medium having a computer readable program embodied therein, wherein the

3   computer readable program when executed in a computer causes the computer to:

4   receive, on a recurring basis, sets of samples of a service metric obtained by monitoring

5   performance of a network;

6   calculate predefined statistical parameters of the sets of obtained samples;

7   determine whether the calculated predefined statistical parameters meet predefined

8   threshold requirements, wherein the predefined threshold requirements include requiring a

9   minimum number of samples for each obtained set and a ratio of the calculated predefined

10   statistical parameters that does not exceed a predetermined ratio;

11   use ones of the sets of samples which meet the predefined threshold requirements to

12   generate a mathematical representation of a current trend in the service metric using linear

13   regression, the linear regression further comprising:

14   determining a standard deviation and a mean of the ones of the obtained sets of

15   samples, and

16   determining a ratio of the standard deviation and the mean of the ones of the

17   obtained sets of samples; [[and]]

18   use the mathematical representation to predict a time when the service metric will exceed

19   a defined threshold if the current trend continues; [[and]]

20   generate an anticipatory alert if the predicted time is less than a predefined time from a

21   time at which the prediction is made; and

22   cancel ~~canceling~~ a previously generated alert is a subsequently-generated mathematical

23   representation of the current trend predicts that the time when the service metric will exceed the

24   defined threshold is not within the predefined time from a time at which the subsequent prediction

25   is made.